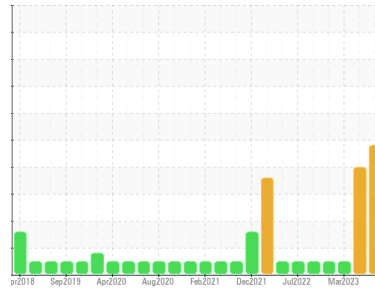




PROBLEM SUMMARY

Sample Rating Trend



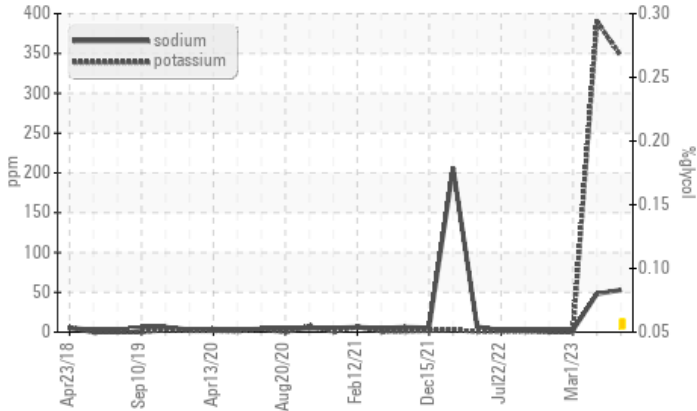
GLYCOL



Machine Id
3792
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (38 QTS)

COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	NORMAL
Sodium	ppm	ASTM D5185m	▲ 53	▲ 48	2	
Potassium	ppm	ASTM D5185m >20	▲ 347	▲ 390	0	
Glycol	%	*ASTM D2982	▲ 0.06	NEG	NEG	

Customer Id: GFL035
 Sample No.: GFL0071614
 Lab Number: 05939474
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

29 Jun 2023 Diag: Angela Borella

DIRT



We advise that you check for the source of the coolant leak. Resample at the next service interval to monitor. All component wear rates are normal. Sodium and/or potassium levels are high. Elemental level of silicon (Si) above normal indicating ingress of seal material. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



01 Mar 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



06 Jan 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

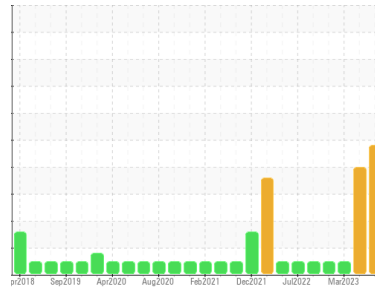
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
3792

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (38 QTS)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. There is a moderate concentration of glycol present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0071614	GFL0071556	GFL0053172
Sample Date	Client Info	30 Aug 2023	29 Jun 2023	01 Mar 2023
Machine Age	hrs	7176	7176	7176
Oil Age	hrs	600	600	600
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >100	22	18	9
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	2	1
Lead	ppm	ASTM D5185m >40	4	5	0
Copper	ppm	ASTM D5185m >330	<1	1	<1
Tin	ppm	ASTM D5185m >15	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	4	3	7
Barium	ppm	ASTM D5185m 0	0	2	0
Molybdenum	ppm	ASTM D5185m 60	66	74	64
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	944	952	972
Calcium	ppm	ASTM D5185m 1070	1146	1208	1169
Phosphorus	ppm	ASTM D5185m 1150	1059	1119	1061
Zinc	ppm	ASTM D5185m 1270	1261	1287	1302
Sulfur	ppm	ASTM D5185m 2060	3015	3456	3815

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	19	▲ 37	4
Sodium	ppm	ASTM D5185m	▲ 53	▲ 48	2
Potassium	ppm	ASTM D5185m >20	▲ 347	▲ 390	0
Glycol	%	*ASTM D2982	▲ 0.06	NEG	NEG

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.9	0.9	0.4
Nitration	Abs/cm	*ASTM D7624 >20	12.1	11.5	7.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	25.5	25.8	20.3

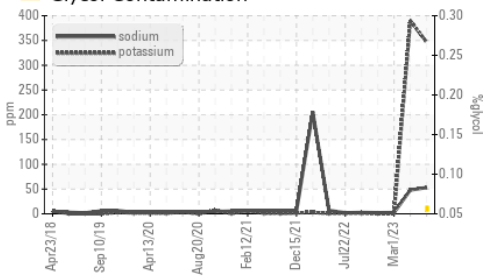
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.7	22.1	15.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.4	8.8	9.0

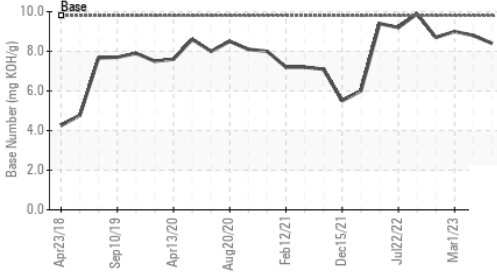


OIL ANALYSIS REPORT

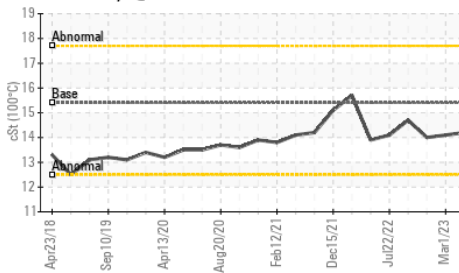
▲ Glycol Contamination



Base Number



Viscosity @ 100°C

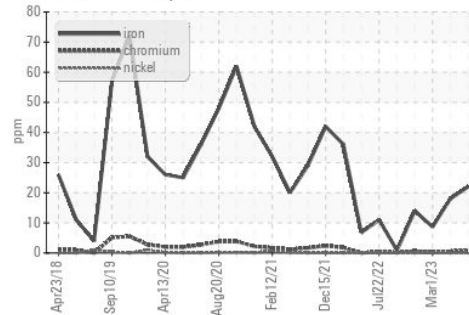


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

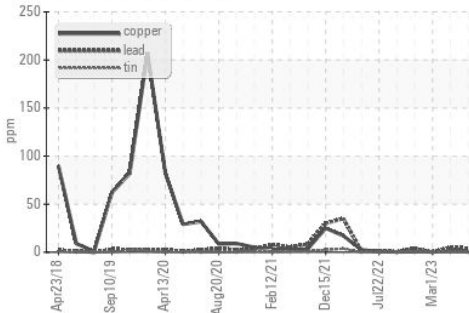
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.4	14.2

GRAPHS

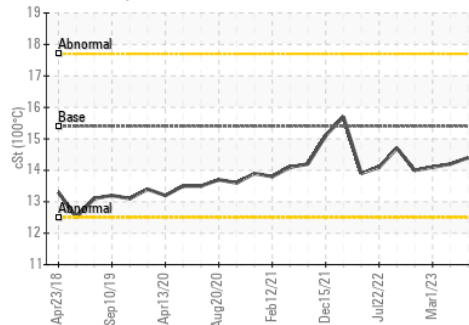
Ferrous Alloys



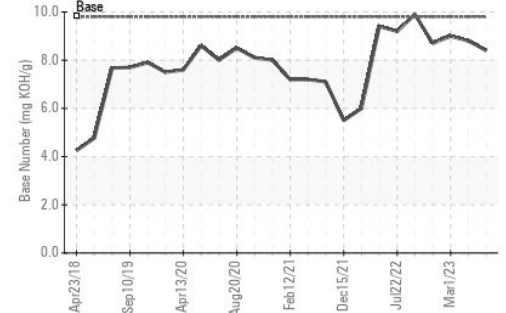
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0071614 Received : 31 Aug 2023
 Lab Number : 05939474 Diagnosed : 01 Sep 2023
 Unique Number : 10630086 Diagnostician : Wes Davis
 Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 035 - Greensboro
 1236 Elon Place
 High Point, NC
 US 27263
 Contact: JORGE COSTA
 jorge.costa@gflenv.com
 T: (336)668-3712
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)